June 24, 2013

Mr. Gordon Swain Paco Swain Realty 33916 Natures Way Walker, Louisiana 70785

Re: Wetland Remediation Assessment

New Orleans District Project Number MVN-2008-01954

Louisiana Purchase Equestrian Estates

Walker, Louisiana

Dear Mr. Swain:

To my understanding and based on the conversations we have had, the U.S. Army Corps of Engineers (USACE) is requiring you to remediate Louisiana Purchase Equestrian Estates (LPEE) back to its natural state as well as mitigate for the wetland impacts (1.35 acres) and "other waters of the U.S." impacts (2,730 linear feet) associated with development.

Based on my opinion, remediating the site back to a natural state would only create additional impacts which will likely result in greater than 1.35 acres and 2,730 linear feet. That would not seem to be a viable option for the interest of wetlands and "other waters of the U.S." Furthermore, I would assume the cost associated with that scope of work would greatly outweigh the penalty that is proposed.

For mitigation purposes, current average costs from several banks around the area range anywhere from \$60,000-\$80,000 per acre. From our discussions, that is not a feasible option either from a cost perspective. Ultimately, the best option would be to offer on-site restoration/mitigation greater than what was impacted. This would seem to be the most cost efficient. This could be achieved by proposing a bottomland hardwood planting and restoration plan as follows:

Proposed Bottomland Hardwood Planting and Restoration

Restoration will be accomplished by planting an appropriate species mixture of bottomland hardwoods during the standard planting season (December to March). Bare-root seedlings will be planted on approximately 1.35 acres using 12 x 12 foot spacing. Species proposed for the restoration area are listed below. The actual species planted will depend on availability. However, no less than five of the species below will be obtained for planting. A mixture of the following species will be planted to restore the site:

COMMON NAME	SPECIES	INDICATOR
Bald cypress	Taxodium distichum	OBL
Willow oak	Quercus phellos	FACW
Water oak	Quercus nigra	FAC
Nuttall oak	Quercus nuttallii	OBL
Cherrybark oak	Quercus pagoda	FAC
Overcup oak	Quercus lyrata	OBL
Swamp chestnut oak	Quercus michauxii	FACW
Water hickory	Carya aquatica	OBL
Pecan hickory	Carya illinoensis	FAC
Sycamore	Platanus occidentalis	FACW
Sweet gum	Liquidambar styraciflua	FAC
Sugarberry	Celtis laevigata	FACW
Green ash	Fraxinus pennsylvanica	FACW
Red mulberry	Morus rubra	FAC
Common persimmon	Diospyros virginiana	FAC

EXOTIC/NUISANCE VEGETATIVE SPECIES CONTROL

Exotic/noxious plant species (e.g., Chinese tallow-tree, cottonwood, honey locust, and black willow) will be controlled as needed until below referenced performance standards are achieved.

PERFORMANCE STANDARDS

The following performance standards shall be implemented:

Success Criteria

Bottomland Hardwood Establishment Criteria

- a. Tree Planting
 - Tree species will be planted on 12 x 12 feet spacing, with a minimum of five above-referenced target species.
 - Seedlings will be planted to achieve a final coverage at year five of at least 151 stems per acre (50% survival), including desirable natural recruits.
 - Seedling survival and growth will be monitored one-year, threeyears, and five-years post-planting.

Five-Year Success Criteria:

- A 50% survival rate of the planted and naturally recruited tree seedlings or 151 desirable trees per acre will be attained through the second growing season and persist through year five of the monitoring requirement.
- 2. The restoration area will include less than five percent exotic (Chinese tallow-tree) or noxious (black willow, cottonwood, water locust) species by year five.

LONG-TERM MAINTENANCE AND PROTECTION

LPEE shall be responsible for protecting and maintaining the restoration area.

Uses Prohibited

- Placing, filling, storing, or dumping of refuse, trash, vehicle bodies or parts, rubbish, debris, junk, waste, or other such items within the restoration area.
- 2) Mechanized land clearing or deposition of soil, shell, rock or other fill within the restoration area.
- 3) Cutting, removal or destruction of vegetation within the restoration area except for control of exotic/noxious species.
- 4) Grazing of cattle or other livestock within the restoration area.
- 5) All other activities, which the NOD determines to be inconsistent with the establishment, maintenance and protection of wetlands within the restoration area and that may or may not be subject to NOD regulatory authority.

Uses Allowed

- 1) Monitoring of vegetation, soils and water.
- 2) Non-consumptive recreational uses, such as hiking and bird watching.
- 3) Ecological education.

MONITORING AND REPORTING PROVISIONS

Monitoring Provisions

LPEE agrees to perform all necessary work to monitor the restoration area required to demonstrate compliance with the success criteria.

Monitoring Reports

Monitoring reports shall be provided to the NOD no later than 60 days following the completion of each monitoring effort, conducted one-year, three-years, and five-years post-planting. In the event that monitoring shows that initial success criteria have not been met, LPEE shall take measures to achieve the criteria accordingly. Monitoring, reporting, and remedial action shall be conducted in accordance with the following:

- 1. LPEE shall conduct surveys of living seedlings within the restoration area one-year, three-years, and five-years post-planting. Surveys shall be conducted between April 15th and November 15th of the respective year. Seedling survival shall be documented by performing a comprehensive tally on two, 1/10 acre random plots. In addition, the LPEE shall perform a cursory examination of the entire planted tract to determine if overall survival rate is adequate.
- LPEE will, within 60 days following the survey, provide a written report to the NOD. The report shall include, at a minimum, the following:
 - a. A USGS topographic map with the restoration area indicated.
 - b. A detailed narrative that summarizes the condition of the restoration area.
 - c. Appropriate site maps that show the locations of sampling plots, permanent photographic stations, sampling transects, etc.
 - d. Results of vegetation surveys, including the following: visual estimates of overall percent cover and of percent cover within each layer of vegetation; indices of species diversity; estimates of percent cover of exotic and noxious species within each layer of vegetation and control measures to be taken; composition of plant community (wetland indicator status); calculations of survival for planted trees; estimates of natural re-vegetation; and estimates of plant vigor (as measured by evidence of reproduction).
 - e. A discussion of likely causes of observed tree mortality within those areas that did not exhibit a survival rate for planted seedlings of at least 151 stems per acre.

- f. Monitoring Reports should be mailed to:
 U.S. Army Corps of Engineers
 New Orleans District
 Surveillance and Enforcement Section
 7400 Leake Avenue
 New Orleans, Louisiana 70118-3651
- 3. If survival is less than 151 desirable trees per acre (as determined by sampling or observing high mortality within any zone or location within a planted area), LPEE shall take appropriate actions and replace all dead seedlings with new seedlings of the appropriate species from the approved list (replacements need not be the same species) during the following non-growing season.
- 4. LPEE will not be responsible for replacement of seedlings or trees when mortality is due to an Act of God or other force majeure event (other than beaver predation) that occurs after the long-term criteria are met.

Please review the material provided and if you have questions please call me at (225) 933-1353.

Sincerely,

Tim Kimmel Biologist

20519 Liberty Rd Pride, LA 70770

Encl: As stated

		·		r
				•
		·		

1240	(Domestic Mail C	D MAIL RE	Coverage Provided)
J.	L Off	CLA	- USE-
37	Postage	\$	H & A & HIDE
ייי	Certified Fee		
	Return Receipt Fee (Endorsement Required)	-	Postmark
90 00	Restricted Delivery Fee (Endorsement Required)		JUN 1 0 man
149	Total Postage & Fees	\$	0 2012
7,00.	Street, Apt. No.; or PO Box No. City, State, ZiP+4 PS Form 3800, August 20	Jane	Real Blad See Reverse for Instructions

•			1

- t - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	For delivery inform	D MAIL BE	Coverage Provided)
1490 000 37	Postage Certified Fee Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees	\$	JUN erg 8 2012
7007	Sireel, Apt. No.; or PO Box No. Cily, State, ZiP+4	e, Cc	See Reverse for Instructions

fig.

For deliv	Postage \$ ertified Fee eccept Fee Required)	PIM LIM RECEIPT Insurance Coverage Provided) Our website at www.usps.com A L U S E JAN Hole 9 2013	
Sireet, Apr. No. or PO Box No. City, State Zip.)E9 2.0. 431,	See Reverse for Instructions	

·

ı			